

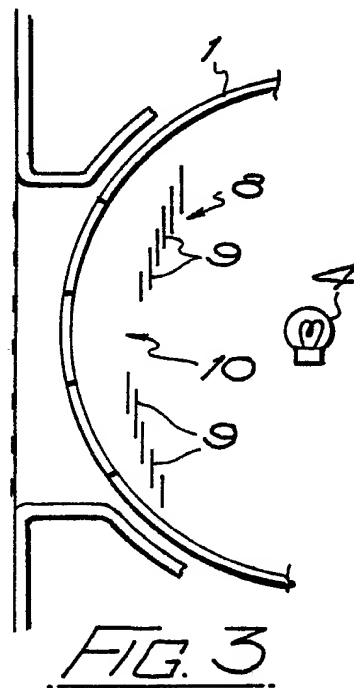
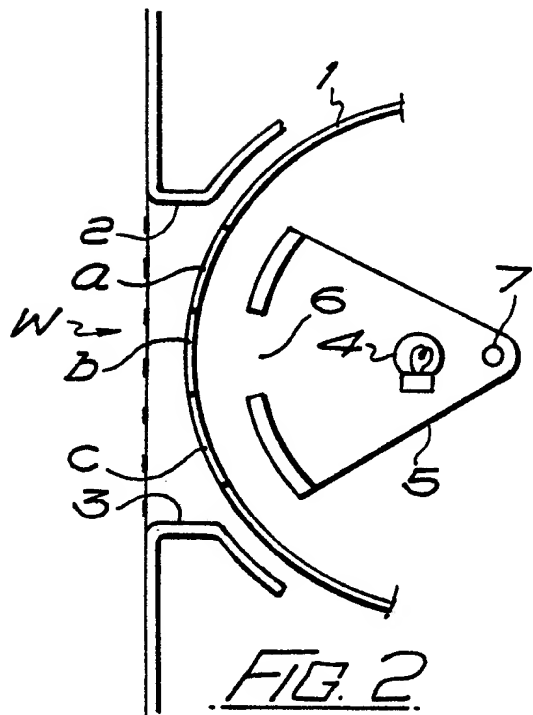
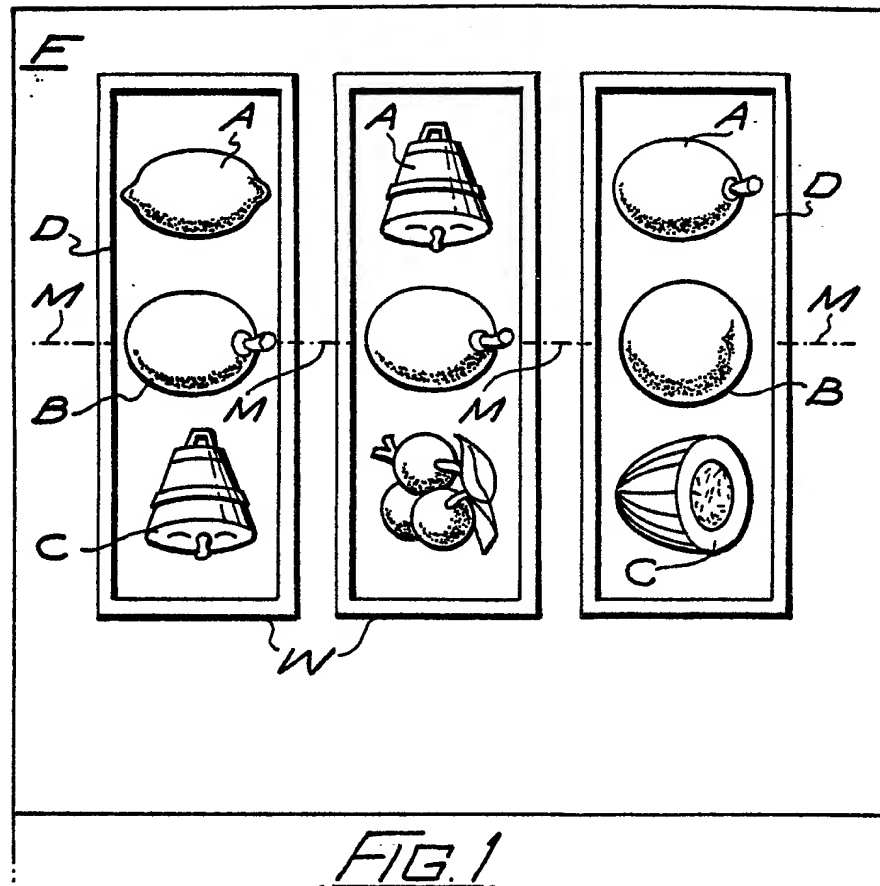
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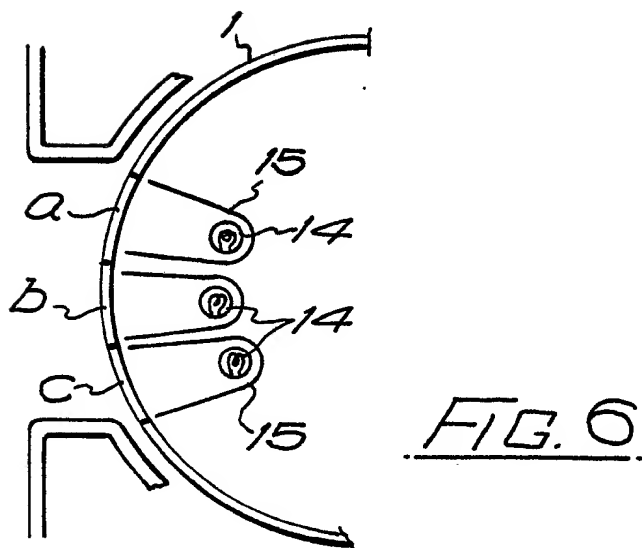
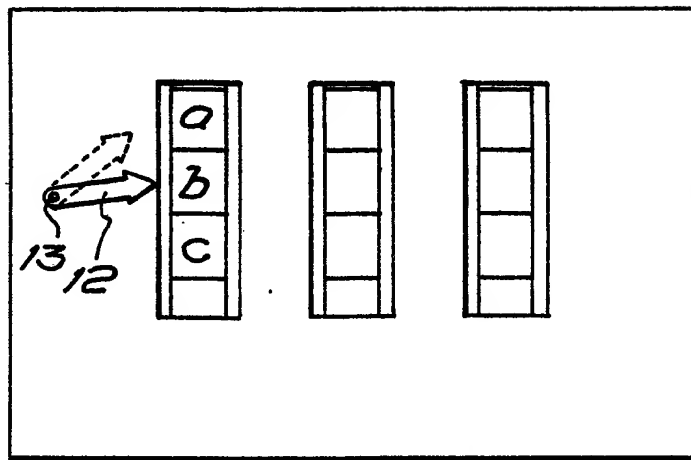
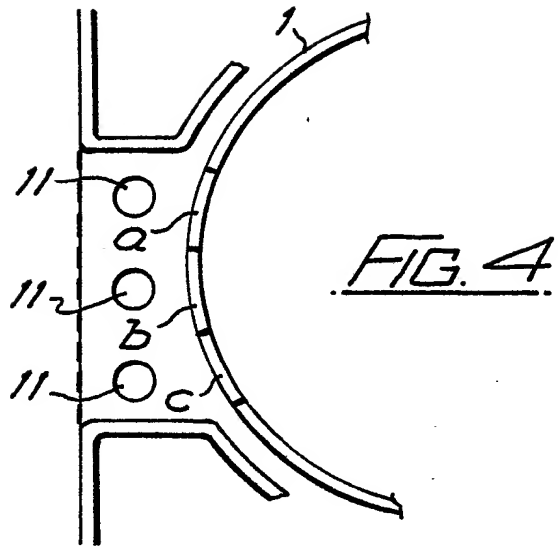
(57) The invention concerns fruit machines and the like in which, generally one symbol on each drum, when stationary, is highlighted relative to the other symbols in view of the player. The highlighted symbols may

Alternatively or additionally the highlighting of one symbol may be replaced by the highlighting of other symbols in quick succession and payout based on the finally highlighted symbol, with or without further rotation of a drum of drums.



# GB 2 116 345 A





## SPECIFICATION

**Gaming or amusement with prizes machine**

The invention relates to a coin operated or coin freed gaming machine or amusement with prizes machine of the type, hereinafter referred to as a machine of the type aforesaid, in which, at each of a plurality of adjacent locations on the machine, a plurality of symbols is displayed to a player, one symbol being at a designated payline, and a prize is indicated or awarded if the combination of symbols at a payline at the respective locations is a predetermined winning combination.

Machines of the type aforesaid include machines commonly described as "fruit machines" the operation of which has been described in our British Patent No. 1292712. These machines comprise a plurality of drums, each having a series of symbols about its periphery, which are caused during play to rotate about a horizontal axis and subsequently stop each at a random angular position with a plurality of the symbols visible to the player, one being at a designated payline, and a pay-out mechanism operative to indicate or award a prize according to the symbol appearing at the payline of the respective drums. However, the invention also relates to gaming or amusement with prizes machines which employ, instead of drums, cathode ray tube, liquid crystal or other display means, giving to the player the appearance of such drums or other means for displaying to the player during play a sequence of symbols which stops with more than one symbol visible to the player.

The so-called "fruit machine" has been a very popular form of amusement with prizes machine for many years and several attempts have been made to improve its appeal by offering the player an improved chance of winning a prize. Thus features have been introduced commonly known as RE-SPIN (a drum rotates and comes to rest at random a further time during the game), NUDGE (a drum indexes controllably in steps of one symbol) and HOLD (at least one drum is prevented from rotating while the other or others rotate during a respin or subsequent game). It is also known to offer a feature commonly known as tic-tac-toe which provides that a prize is indicated or awarded if a specific symbol appears to the view of the player on each drum irrespective of whether the symbol is at or immediately adjacent the designated payline.

According to the present invention there is provided a machine of the type aforesaid comprising means whereby at one or more of the adjacent locations any one or each of a plurality of the symbols visible to the player is selectively highlighted relative to the other symbol or symbols so visible. The symbols may be highlighted by back illumination or front illumination or may be otherwise illuminated or highlighted otherwise than by illumination.

The selection of the symbol or symbols may be random or controlled and the or each selected

symbol may be defined as being at the payline.

Means may be provided within, before or after a game whereby, automatically or by action of a player, a symbol at one location which was highlighted may cease to be highlighted and another symbol at the location which was not highlighted may thereafter become highlighted. The highlighting of one symbol may be replaced by the highlighting of another rapidly and successively, and each successive other symbol highlighted may be selected at random or in predetermined sequence.

It may constitute a randomly available feature of the machine that the symbol remaining highlighted when the succession of replacements is stopped automatically or by action of the player is defined as being at the payline, and that a symbol is illuminated at the or each other location such as to combine with the symbol remaining highlighted to form a winning combination. If among the symbols visible to the player at any location, none is available to contribute to a winning combination with the symbol remaining highlighted, a symbol visible to the player at that location may be replaced by one such as will contribute to a winning combination.

Embodiments of the invention will now be described by way of example and with reference to the accompanying drawings, of which:—

Fig. 1 is a front elevation of a typical fruit

machine of the prior art;

Fig. 2, 3 and 4 are partial sectional views of first, second and third embodiments of the invention;

Fig. 5 is a front elevation of a fourth

embodiment; and

Fig. 6 is a sectional side elevation of a fifth embodiment.

In a typical fruit machine as shown in Fig. 1, each of the drum periphery portions D visible to the player through window W when stationary displays a symbol at each of three positions A, B, C of which the centre position is permanently designated as the payline by means of appropriate markings M on the facia F and window W of the machine.

In machines according to one aspect of the invention, however, there is no permanent designation of a payline, but instead, any one or even a plurality of the visible symbols on at least one of the drums or at at least one of the plurality of adjacent locations on a machine which does not employ drums may be so designated by being selectively highlighted relative to the other visible symbol or symbols. Thus, in the embodiment shown in Fig. 2, a portion of the peripheral surface 1 of a drum is visible to a player through window W defined by upper and lower edges 2, 3. The portion comprises, when the drum is stationary, three symbols *a*, *b* and *c* which are visible to a player by light from a source exterior of the drum reflected from the drum surface. However, the surface is at least partially translucent so that when any symbol is subjected to back illumination by means of lamp 4 located interior to the drum,

that symbol is emphasized or highlighted relative to any which is not so back illuminated.

In the embodiment illustrated, the bulb 4 is enclosed within a housing 5 which has a forward opening 6 and is mounted for angular movement about a horizontal pivot 7 so that light from lamp 4, which falls on symbol *b* in the position shown may be caused to illuminate symbol *a* or *c* by movement of the housing 5 upwardly or downwardly about the pivot 7 by a conventional randomly operated or controlled mechanism.

The payout mechanism (not shown) is controlled according to the position of the housing 5 as well as to the angular position of the drum when stopped, so that a prize is indicated or awarded according to which symbol is or which symbols are highlighted. The apparatus accordingly provides additional interest to a player compared with the conventional fruit machine in which the position of the payline is fixed.

In the embodiment shown in Fig. 3, the back illumination of the symbols on the drum by interior lamp 4 is controlled by an adjustable shutter mechanism 8 which comprises upper and lower sets of variably overlapping plates 9. By varying the overlap of the plates of one or other set the gap 10 between the sets can be adjusted both for position and width so that if required not only can any one of the symbols *a*, *b* or *c* be back illuminated but the illumination can extend to two or all three symbols. The control of the shutter may be effected by controlled or random mechanism.

Again, the payout mechanism is controlled according to the position and extent of the gap 10 between the sets of plates 9, so that a prize is indicated or awarded according to the symbol or symbols highlighted, and not only does the apparatus accordingly provide additional interest to a player compared with the conventional fruit machine in which the position of the payline is fixed but because additionally it may offer a further chance of winning in that the effective pay line may be extended to comprise two or more symbols on each drum.

Fig. 4 shows an alternative arrangement in which emphasis or highlighting by means of back illumination is replaced by additional front illumination. Whilst each of the symbols *a*, *b* and *c* receive substantially equal illumination from the front or players side of the machine to the extent that each can be seen by the player, additional illumination can be given selectively to one or other of the symbols by means of low power lamps 11 located in recesses in the side of the window. Thus the upper, middle and lower of the lamps 11 is arranged respectively to highlight symbols *a*, *b* and *c* relative to the others. The lamps 11 may be selectively lit according to a controlled or random pattern which includes the highlighting of any one, any two or all three symbols.

In a variation of the Fig. 4 embodiment, illumination for highlighting selected symbols may be provided edgewise of the drum surface, and the

symbols may be so formed thereon as to be emphasized to a player at the front of the machine by such edgewise illumination.

In the embodiment shown in Fig. 5, each of the symbols visible to the player can be "highlighted" in a metaphorical sense by arranging for arrow 12 to point to the symbol to be emphasised. Thus as shown the arrow points to symbol *b* indicating that payout will be effected according to the symbol at the *b* position, but the arrow can turn about pivot 13 so as to point either to symbol *a*, as shown in dotted lines, or to symbol *c* whereby respectively to indicate that payout will be according to the symbol at the *a* or *c* position. A similar and independently controlled arrow may be provided for each drum. If required a plurality of arrows may be arranged to turn independently above the or each pivot 13.

In the embodiment shown in Figure 6 three lamps 14 are mounted interior of the drum 1, each lamp being enclosed within its own fixed housing 15 open towards the front. Each lamp is connected to a source of electric power through an individual switch so that any one, any two or all three may be lit selectively so as to back illuminate a portion of the drum periphery. The drum 1 is arranged to stop with a symbol at each position *a*, *b*, *c* in front of the respective housings 15, and as in the Figure 2 embodiment the surface of the drum carrying the symbols is translucent so that the symbol or symbols back illuminated appear highlighted to the player.

Whilst the selective illumination referred to above has been expressed in terms of visible light sources, highlighting can be effected by the use of invisible radiation, for example ultraviolet light.

Whilst in all the embodiments described above and below, selected symbols are referred to as being highlighted relative to others which may be visible to the player by reason only of ambient illumination, machines may be designed or operated in such a way that any ambient illumination is insufficient to render any non-highlighted symbols effectively visible to the player though presented to the player at the window. It is likely that machines made or operated in this manner will not be acceptable to players, but in any case they are to be regarded as being within the scope of the invention, and where necessary the phrase in the specification and appendant claims reading "visible to the player" should be interpreted as meaning "within the range of vision to the player," and corresponding interpretation should be given to related terms.

A machine according to any of the above embodiments but particularly that constructed according to the Fig. 6 embodiment can be adapted to provide some further attractive features. Thus, when each of a plurality of drums 1 has rotated and stopped presenting three symbols to the player and one of the symbols on one of the drums has been highlighted by one of the light sources 14 or the equivalent in any other embodiment, the highlighting of that symbol is caused to cease by the extinction of the light

source and another of the symbols presented to the player, either on the same or a different drum, is then highlighted. This other symbol in turn ceases to be highlighted, and a third symbol is, or the first symbol is again, highlighted. The duration of each successive highlighting may be only a fraction of a second but the interval between successive highlightings may be still shorter so that the player is given the impression of a moving light.

To provide one feature the apparent movement is arranged to be at random or at least in a non-regular sequence amongst all of the symbols displayed, and the player is provided with a button effective to stop the "movement" that is to say to retain and not replace the highlighting of one of the symbols. To complete this feature, a symbol on each of the other drums will be highlighted, and the other drums rotated if necessary, so that the highlighted symbols constitute a winning combination. For example, if the drums stopped with symbols presented to the player as shown in Fig. 1, and the player pressed the button to retain the highlighting on symbol C of the left hand drum, then symbol A of the intermediate drum would be highlighted and the right hand drum would turn until a bell symbol was presented to the player. The bell symbol on the right hand drum would then become highlighted and a prize would be indicated or awarded, assuming that three bell symbols constituted a winning combination and that highlighted symbols were defined as being at the payline.

In an alternative arrangement the left hand drum (L) and the intermediate drum (I) would rotate until the bell symbols were on the centre position but possibly remained highlighted whilst the right hand drum (R) would turn until a bell symbol was at the centre position and possibly became highlighted. This would result in a prize being awarded or indicated if three bells constituted a winning combination and the centre positions were regarded as constituting the payline.

According to another feature game and assuming that the drums again stopped with a pattern as shown in Fig. 1, the symbols would be illuminated in the sequence LA, LB, LC, IC, RC, RB, RA, IA and the sequence would repeat until the "movement" stopped either at random or after a predetermined interval. The machine could be arranged to indicate or award a prize by one or other of the manouvres as indicated above. Thus if for example the "movement" stopped with the plum device RA highlighted, a prize could be awarded on highlighting of the plum devices at IB and LB with or without indexing of the right hand drum downwards by one symbol and possibly changing the highlighting of that drum to the centre position.

By defining the highlighted symbols as lying on the payline and arranging for prizes to be awarded or indicated accordingly, the machine can provide limited nudging without recourse to indexing the drums. Thus for example if the drums stopped with the symbol pattern as shown in Fig. 1 and the

central symbol on each drum is highlighted, the player may be provided with means to "move" the highlighting of the right hand drum upwardly by one symbol and the machine can be arranged to award or indicate a prize corresponding to a winning combination of three plums.

Again, the feature commonly known as tic-tac-toe can not only be made effective by highlighting winning combinations appearing, say, diagonally in the pattern of symbols displayed and arranging for prizes to be awarded or indicated according to the position of the highlighting lamps as well as the angular position of the drums, but the highlighting has value also in indicating to the player the basis on which his prize has been awarded or indicated.

In all of the above examples, three symbols have been assumed to be visible to the player on each of three drums when stationary, but the scope of the invention extends to machines in which only two or, as it may be, four or more symbols are visible on each drum, and in which there are only two or, as it may be, there are four or more drums.

In other embodiments within the scope of the invention but not described, an image is produced on a screen so as to present to the player a more or less accurate representation of the symbols on the drums of a conventional fruit machine. The image may be produced by cathode rays, electro magnetic radiation or liquid crystal display, and any one or more than one of a plurality of the apparent symbols on each drum can be selectively highlighted relative to the other symbol or symbols presented to the player. It is to be understood that in these embodiments, the payout mechanism of the machine may be arranged to operate to award or indicate a prize according to the symbol or symbols highlighted.

## 105 CLAIMS

1. A machine of the type aforesaid comprising means whereby at one or more of the adjacent locations any one or each of a plurality of the symbols visible to the player is selectively highlighted relative to the other symbol or symbols so visible.

2. A machine according to Claim 1 wherein the symbols are highlighted by illumination.

3. A machine according to Claim 2 wherein the symbols are illuminated from the back.

4. A machine according to any preceding claim wherein the selection of the symbol or symbols for highlighting is at random.

5. A machine according to any one of claims 1—3 wherein the selection of the symbol or symbols for highlighting is predetermined.

6. A machine according to any preceding claim wherein the or each selected symbol is defined as being at the payline.

7. A machine according to any one of the preceding claims and further comprising means whereby, within, before or after a game, automatically or by action of a player, a symbol at one location which was highlighted may cease to

be highlighted and another symbol at the or an adjacent location which was not highlighted may thereafter become highlighted.

5 8. A machine according to Claim 7 wherein the highlighting of one symbol is replaced by the highlighting of another rapidly and successively, and each successive other symbol highlighted is selected at random or in predetermined sequence.

10 9. A machine according to Claim 8 providing an additional feature in that the succession of replacements may be stopped automatically or by action of the player.

15 10. A machine according to Claim 9, further comprising means whereby a symbol is illuminated at the or each other location such as to

combine with the symbol remaining highlighted when the succession has stopped to form a winning combination.

20 11. A machine according to Claim 10 further comprising means whereby, if among the symbols visible to the player at the or any of said other locations, none is available to contribute to a winning combination with the symbol remaining highlighted, a symbol visible to the player at that  
25 other location may be replaced by one such as will contribute to a winning combination.

12. A machine of the type aforesaid substantially as described with reference to Figures 2—5 of the accompanying drawings.